

Appln. No.: 10/786,188  
Amendment Dated October 30, 2006  
Reply to Office Action of August 3, 2006

KSI-227US1

**Remarks/Arguments:**

Claims 17-23 and 27-40 are pending. Claim 40 is newly added, and is supported by the originally filed application at, for example, page 4, lines 6-25 and at Figs. 2A-2B. No new matter has been added.

Claims 27 and 36-39 have been allowed. Claims 21-22 stand objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 17-20, 23, and 28-35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gilding (U.S. Patent No. 4,049,506) and further in view of Evans (U.S. Patent No. 4,950,365). Applicants respectfully disagree with the rejection of the claims.

Claim 17 recites the step of "coating at least a portion of an exterior surface of the tip portion with a polymer." This step is neither disclosed nor suggested by art of record.

Gilding discloses a method for applying an electrodeposited or silicone layer to a bonding tool. As provided in the present Office Action, "Gilding fails to teach a polymer coating on the exterior of the tip portion . . ." of a bonding tool. Applicants respectfully disagree with the combination of Evans and Gilding in the rejection of claim 17, at least because there is no motivation to combine Gilding and Evans.

Evans relates to coating metal substrates (e.g., screwdriver blades, drill bits, saw blades, wrenches, pliers, socket sets, screws, hammer heads, hinges, nuts drivers, shears, and the like) with a hard coated metal compound layer, and then applying another polymeric layer (e.g., a parylene layer) to the hard coated metal compound layer (See Abstract; column 3, line 64 through column 4, line 9; and column 4, lines 46-50). As explained below, Evans provides the hard coated metal compound layer for wear resistance, and the additional soft polymeric coating for corrosion resistance and a decorative surface.

Evans provides that hard coatings on metals may have defects which lead to corrosion (See column 1, line 64 through column 2, line 2). Corrosion may lead to "large areas of the hard coated article becoming blotched and darkened [and that] [a]lthough the wear-resistant characteristics of the hard coated metal compound article are not affected, the decorative surface is marred" (See column 2, lines 16-21) (emphasis added).

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Evans also discusses coating with parylene and concludes that a "thin parylene coating is quite soft and is easily worn off of any substrate that is subject to wear or moderate physical handling." (See column 3, lines 40-46).

In view of the limitations of hard coatings and parylene coatings, Evans combines the two coatings to obtain the benefits of each. More specifically, "articles of the present invention have the heretofore unknown combination of desirable properties . . . the article retains its hard, wear-resistant surface, its decorative tone and its resistance to corrosion. The outer parylene layer is almost immediately worn off of the surface of the substrate, exposing the hard coated metal surface. However, the conformal quality of the parylene coating is so efficient that the areas of increased permeability associated with the coating defects--which invariably exist in the hard coated layer--are 'filled' with the polymeric coating. Even after extensive use of the article, the parylene unexpectedly prevents air and moisture from reaching the surface of the article. It is therefore possible to combine the desirable properties of the two coatings even after, by all appearances, the soft parylene coating has long been worn off the surface of the article." (See column 4, lines 10-29).

Thus, Evans has very limited applicability to the present invention. For example, in contrast to the present invention, Evans relates to metal substrates such as screwdrivers and hammer heads. In contrast, the present invention relates to wire bonding tools (e.g., ceramic bonding tools). Further, Evans provides a hard coated metal compound on the substrates to provide wear resistance. In contrast, the polymeric coating recited in claim 17 provides wear resistance because, for example, damaging contaminants are less likely to adhere to the surface of the bonding tool with the polymeric coating applied thereto (See page 3, lines 17-21 of the originally filed application). Further still, there are two coatings applied to the metal substrate in Evans, where claim 1 recites a single coating.

Thus, Applicants respectfully submit that it would not have been obvious to apply the second, outer polymeric coating of Evans with Gilding because the polymeric coating of Evans is not provided for the same reasons (or to solve the same problems) as the polymeric coating recited in claim 17.

Accordingly, Applicants respectfully submit that claim 17 is patentable over the art of record. Claims 18-23, 28-35, and 40 depend from claim 17, either directly or indirectly, and as such, are also patentable over the art of record.

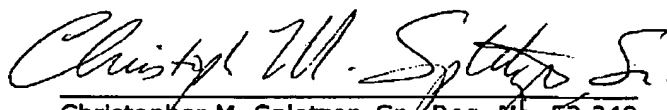
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Newly added claim 40 is also patentable over the art of record because it recites at least one feature neither disclosed nor suggested by the art of record. Claim 40 recites "coating at least the portion of the exterior surface of the tip portion directly with the polymer without providing an intermediate coating therebetween." (emphasis added). In contrast, Evans teaches application of a polymer coating after applying a hard metal coating to the metal substrate (See column 3, line 64 through column 4, line 4).

Applicants respectfully submit that the above-identified application is in condition for allowance which action is respectfully requested. The Examiner is invited to contact Applicant's representative by telephone in order to advance prosecution of the present application.

Respectfully submitted,

  
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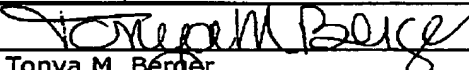
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October 30, 2006

  
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